

Claims

We claim:

1. An apparatus for moving a latching pin a lateral distance between a latch position and an unlatch position comprising;
a rotatable handle that defines a plane of rotation when rotated about an axis of rotation;
a latching pin connected to the rotatable handle wherein a central axis of the latching pin is substantially perpendicular to the plane of rotation and substantially coincident with the axis of rotation of the handle; and
a latching pin guide that engages and guides the latching pin along the central axis in response to rotation of the handle.
2. The apparatus of claim 1 wherein the latching pin comprises a cam pin that engages the latching pin guide.
3. The apparatus of claim 2 wherein the cam pin is fixed to the latching pin perpendicular to the central axis of the latching pin and wherein the latching pin guide comprises a cam disposed circumferentially about the latching pin and wherein the cam comprises a circumferential cam slot that defines an arc having a lateral component equal to the lateral distance and a circumferential component equal to a predetermined amount of rotation of the rotatable handle, and wherein the cam pin protrudes through the cam slot and rides in the cam slot to guide the latching pin along the lateral distance in response to rotation of the handle.

4. The apparatus of claim 1 comprising a biasing spring that urges the latching pin toward the latch position.
5. The apparatus of claim 1 comprising a keeper channel into which a distal end of the latching pin extends.
6. The apparatus of claim 3 wherein the cam pin protrudes through the handle and the latching pin to fix the handle and latching pin together.
7. The apparatus of claim 3 wherein the arc defined by the cam slot has a detent portion at an end corresponding to the latch position of the latching pin.
8. The apparatus of claim 1 wherein the handle and latching pin are connected to a detachable panel.
9. The apparatus of claim 8 wherein the handle is adapted to be a carrying means for the detachable panel when it is detached.
10. The apparatus of claim 1 wherein a grip extension of the handle extends along an axis generally perpendicular to the central axis of the latching pin.

11. The apparatus of claim 1 wherein the handle is rigidly connected to the latching pin.

12. A fairing system comprising at least one fairing for being installed on a side of a truck, the fairing comprising a hinge at a lower portion about which the fairing is pivoted between a closed position and an open position, the fairing system also comprising an apparatus for removably latching the fairing to the truck, the apparatus comprising:

a rotatable handle that defines a plane of rotation when rotated about an axis of rotation;

a latching pin connected to the rotatable handle wherein a central axis of the latching pin is substantially perpendicular to the plane of rotation and substantially coincident with the axis of rotation of the handle; and

a latching pin guide that engages and guides the latching pin along the central axis in response to rotation of the handle, wherein the latching pin engages latching features on the truck to maintain the fairing in the closed position.

13. The apparatus of claim 12 wherein the latching pin comprises a cam pin that engages the latching pin guide.

14. The apparatus of claim 13 wherein the cam pin is fixed to the latching pin perpendicular to the central axis of the latching pin and wherein the latching pin guide comprises a cam disposed circumferentially about the latching pin and wherein the cam

comprises a circumferential cam slot that defines an arc having a lateral component equal to the lateral distance and a circumferential component equal to a predetermined amount of rotation of the rotatable handle, and wherein the cam pin protrudes through the cam slot and rides in the cam slot to guide the latching pin along the lateral distance in response to rotation of the handle.

15. An apparatus for moving a latching pin a lateral distance between a latch position and an unlatch position comprising;

rotatable hand grip means that define a plane of rotation when rotated about an axis of rotation;

latching means connected to the hand grip means wherein a central axis of the latching means is substantially perpendicular to the plane of rotation and substantially coincident with the axis of rotation of the hand grip means; and

guide means that engages and guides the latching means along the central axis in response to rotation of the handle.

16. The apparatus of claim 15 wherein the latching means comprises a cam pin that engages the latching pin guide.

17. The apparatus of claim 16 wherein the cam pin is fixed to the latching means perpendicular to the central axis of the latching means and wherein the guide means comprises a cam disposed circumferentially about the latching means and wherein the cam comprises a circumferential cam slot that defines an arc having a lateral

component equal to the lateral distance and a circumferential component equal to a predetermined amount of rotation of the rotatable handle, and wherein the cam pin protrudes through the cam slot and rides in the cam slot to guide the latching means along the lateral distance in response to rotation of the handle.

18. The apparatus of claim 15 comprising a biasing means that urges the latching means toward the latch position.

19. The apparatus of claim 17 wherein the arc defined by the cam slot has a detent portion at an end corresponding to the latch position of the latching means.

20. The apparatus of claim 15 wherein a grip extension of the hand grip means extends along an axis generally perpendicular to the central axis of the latching pin.

21. The apparatus of claim 15 wherein the hand grip means is rigidly connected to the latching means.